UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,684	01/30/2004	Sergio P. Bonilla	SJO920030093US1	9136

46917   7590   04/15/2008

KONRAD RAYNES & VICTOR, LLP.
ATTN: IBM37
315 SOUTH BEVERLY DRIVE, SUITE 210
BEVERLY HILLS, CA 90212

EXAMINER
HARPER, LEON JONATHAN

ART UNIT	PAPER NUMBER
2166	

MAIL DATE	DELIVERY MODE
04/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 January 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-6,8-16,18-26 and 28-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6,8-16,18-26 and 28-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/18/2008</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   The amendment filed 1/4/2008 has been entered. No claims have been added or

cancelled. No claims have been amended. Accordingly, claims 1-6,8-16, 18-26, and 28-

33 are pending in this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating
            obviousness or nonobviousness.

Claims 1-6,8-16,18-26,28-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Delphi 4 Unleashed Chapter 3 (hereinafter Polymorphism)(art of

record) in view of US 6,317,748 (hereinafter Menzies)).

As for claim 1 Polymorphism discloses: receiving a request implemented via at least one device independent class (See page 4 lines 22-25 note: "DrawIt" this method is called without respect to child class); traversing a class hierarchy database to determine at least one device specific class that corresponds to the at least one device independent class (See page 4 lines 21-23 note: function call traverses to find out which child function it needs to call), and modifying the received request, wherein in the modified request the least one device independent class has been translated to the at least one device specific class (See page 5 lines 5-9 method is called in terms of parent and is translated then executed with respect to the child class).

While Polymorphism does not differ substantially from the claimed invention the disclosure a proxy, and of wherein the class hierarchy database stores a class hierarchy and associations between classes; generating a device specific request in a device specific language; sending the device specific request in the device specific language to a managed device coupled to the proxy, wherein the proxy is a computational device, is not necessarily explicit. Menzies however, does disclose a proxy (See column 4 line 66- column 5 line 10, column 6 lines 20-25) wherein the class hierarchy database stores a class hierarchy and associations between classes (See column 8 lines 20-30) and generating a device specific request in a device specific language; sending the device specific request in the device specific language to a managed device coupled to the proxy, wherein the proxy is a computational device (See column 6 lines 30-40). It would have been obvious to an artisan of ordinary skill in the

pertinent at the time the invention was made to have incorporated the teaching of

Polymorphism into the system of Menzies. The modification would have been obvious

because the two references are concerned with the solution to problem object

encapsulation, therefore there is an implicit motivation to combine these references. In

other words, the ordinary skilled artisan, during his/her quest for a solution to the cited

problem, would look to the cited references at the time the invention was made.

Consequently, the ordinary skilled artisan, would have been motivated to combine the

cited references since Menzies teaching incorporates the principals of polymorphism.

As for claim 2 the rejection of claim 1 is incorporated, and further Menzies

discloses: mapping at least one device independent class attribute to at least one

device specific class attribute in the modified request (See column 6 lines 25-30));

mapping at least one device independent property to at least one device specific

property in the modified request; generating a device specific request from the modified

request (See column 6 lines 35-40), in response to mapping the at least one device

independent class attribute and the at least one device independent property; and

sending the device specific request to a managed device (See column 6 lines 35-40).

As for claim 3, the rejection of claim 1 is incorporated, and further Menzies

discloses: modifying the received request to include at least one association between

device specific classes in the class hierarchy (See column 7 lines 50-60).

As for claim 4, the rejection of claim 1 is incorporated, and further Polymorphism discloses: wherein the received request indicates a source class and a requested class, the operations further comprising (See page 6 note: and child request is made to functions from the parent class): determining a specific association between a first device specific class that corresponds to the source class and a second device specific class that corresponds to the specific class (See page 5 paragraph 2). While Evans discloses: wherein the specific association corresponds to a managed device (See paragraph 0181).

As for claim 5, the rejection of claim 4 is incorporated, and further Menzies discloses: wherein the source class represents storage pools and the requested class represents storage volumes corresponding to a storage pool (See column 8 lines 50-60).

As for claim 6, the rejection of claim 1 is incorporated, and further Menzies discloses: determining a first device specific class from the class hierarchy database, wherein the first device specific class has a specific association with a second device specific class that corresponds to the indicated source class, and wherein the specific association corresponds to the base association (See column 8 lines 15-30).

As for claim 8, the rejection of claim 1 is incorporated, and further Menzies

discloses: wherein the request is received from a Common Information Model

application, and wherein the at least one device independent class is specified by a

Common Information Model schema (See column 7 lines 15-20).

As for claim 9, the rejection of claim 1 is incorporated, and further Menzies

discloses: a command that is part of an object oriented management schema for

managing non-homogeneous devices in a network environment (See column 7 lines 15-

20).

As for claim 10, the rejection of claim 9 is incorporated, and further Menzies

discloses: wherein the management schema comprises the Common Information Model

(See column 15-20).

Claims 11-16,18-20 are method claims corresponding to article of manufacture

claims 1-6,8-10 respectively and are thus rejected for the same reasons as set forth in

the rejection of claim 1-6,8-10.

Claims 21-26,28-30 are system claims corresponding to article of manufacture

claims 1-6,8-10 respectively and are thus rejected for the same reasons as set forth in

the rejection of claim 1-6,8-10.

Claims 31-33 are system claims corresponding to article of manufacture claims

1,2,4 respectively and are thus rejected for the same reasons as set forth in the

rejection of claim 1,2,4.

Response to Arguments

Applicant's arguments filed 10/4/2007 have been fully considered but they are

not persuasive.

Applicant argues:

Applicants respectfully submit that col. 6, lines 30-40 of the cited Menzies does

not teach, disclose, or suggest the claim requirements of generating a device specific

request in a device specific language, and sending the device specific request in the

device specific language to a managed device coupled to the proxy. In particular, there

is no discussion in col. 6, lines 30-40 of the cited Menzies of a device specific language

as required by the claims. The cited col. 6, lines 30-40 in fact appears to discuss that

the server will either directly satisfy a request or become a client itself and forward the

request to an appropriate provider. The claims have different requirements in that the

claims require generating a device specific request in a device specific language, and

sending the device specific request in the device specific language to a managed

device coupled to the proxy.

Examiner responds:

Examiner is not persuaded. Examiner is entitled to give claim limitations their

broadest reasonable interpretation in light of the specification. Interpretation of Claims-

Broadest Reasonable Interpretation During patent examination, the pending claims

must be 'given the broadest reasonable interpretation consistent with the specification.'

Applicant always has the opportunity to amend the claims during prosecution and broad

interpretation by the examiner reduces the possibility that the claim, once issued, will be

interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA

1969). In this case the only requirement is that the language specific to the device. In

Menzies the CIM repository or the server or the provides. all have device specific

language

Applicant argues:

Applicants submit that nowhere does the cited Polymorphism (page 4, lines 21-

25; page 5, lines 5-9) teach or suggest the claims requirements of traversing a class

hierarchy database to determine at least one device specific class that corresponds to

the at least one device independent class. The Examiner has mentioned that page 4,

lines 21-23 of the cited Polymorphism discloses the claim requirement of traversing a

class hierarchy database to determine at least one device specific class that

corresponds to the at least one device independent class. Applicants respectfully submit

that the cited Polymorphism discusses how a method on an object can be allowed to act

in many different ways. For example, one object, called shape may "morph" from one

functionality to another, depending on the context of the call. Polymorphism discusses a

series of objects which descend from one base class and respond to the same virtual

command to produce different outcomes. However, nowhere does the cited

Polymorphism teach or suggest the claim requirements of: (i) at least one device

independent class (ii) at least one device specific class that corresponds to the at least

one device independent class. In the cited Polymorphism (Page 3; section entitled "A

Simple Example of Polymorphism"), the four objects TRectangle, TEllipse, TCircle and

Tsquare objects are each a descendant of a base class called TShape. However, the

cited Polymorphism does not teach or suggest the claim requirements of at least one

device independent class and at least one device specific class that corresponds to the

at least one device independent class. The four objects TRectangle, TEllipse, TCircle

and Tsquare objects are each a descendant of a base class called TShape and there is

no teaching or suggestion in the cited Polymorphism of at least one device independent

class and at least one device specific class that corresponds to the at least one device

independent class. Additionally, nowhere is there any teaching or suggestion in the

cited Polymorphism of traversing a class hierarchy database. While the cited

Polymorphism may discuss that a method of an object can act in many different ways

there is no teaching or suggestion of the claim requirements of traversing a class

hierarchy database.

Examiner responds:

Examiner is not persuaded. Reference is made to MPEP 2144.01 - Implicit

Disclosure"[I]n considering the disclosure of a reference, it is proper to take into account

not only specific teachings of the reference but also the inferences which one skilled in

the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825,

826,159 USPQ 342, 344 (CCPA 1968) Subsequent to an analysis of the claims it was

revealed that a number of limitations recited in the claims belong in the prior art and

thus encompassed and/or implicitly disclosed in the reference (s) applied and cited. The

cited reference Polymorphism (the cited reference) basically discloses the programming

method of Polymorphism. An artisan of ordinary skill in the art would find that applicant's

invention is implicitly disclosed once the artisan views a disclosure of polymorphism.

Polymorphic programming is well known in the art and is used to make generic function

calls to objects in which what function will actually be called will depend upon which

specific object (device, function etc.) it is that implements and uses the generic call and

is actually located in the run time stack at execution of that code segment.

Polymorphism is based on Inheritance, derived objects and run-time binding (also

known in the art as dynamic binding or late binding). In polymorphism a base class is

created (Shape, File, DesktopItem, Vehicle etc.). Child classes are created that inherit

all of the properties of the base class (functions, base variables etc. In A vehicle class

for example, the derived classes could be Car, Truck, Bike, SUV. Each will implement

the functions of the base class. The power of polymorphism lies in the fact that list or

other data structures can be created to hold pointers to the base class (Vehicle for

example) and the list can store either Cars Truck, Bikes or Suv's or any combination

thereof all in the same list as pointers to a Vehicle class member. This means that

function calls are made in terms of the base class and it is not until the program is run

and it is known which of the item(s) are actually in the list that the program looks to the

specific class (car, truck, bike or suv) and calls the function that is implemented by the

specific class (car, truck, bike, or suv) instead of the function that is located in the base

(independent) class (This is the concept of run-time binding). Claims 1,11,21, and 31

are disclosed as follows

receiving a request implemented via at least one device independent class; (This

is the call to the base class (also generic or independent class) traversing a class

hierarchy database to determine at least one device specific class that corresponds to

the at least one device independent class, (This is done when the run-time stack looks

to replace the base class function call with the actual function call from one of the

derived classes i.e. function call is made via point to a Vehicle base class function and

during run-time it is replaced with either a Car, Truck, Bike or SUV function call).

wherein the class hierarchy database stores a class hierarchy and associations

between classes (The association is base class/ derived class (Also known as

parent/child class); and modifying the received request, wherein in the modified request

the least one device independent class has been translated to the at least one device

specific class (This is just the process of searching for the actual function call from the

derived class and replacing the independent class or base class call.) Moreover, the

Common Information Model (CIM) specifies methods and objects.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Leon J. Harper whose telephone number is 571-272-

0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LJH
Leon J. Harper
April 13, 2008

/Hosain T Alam/
Supervisory Patent Examiner, Art Unit 2166